

CLAIMS

1. A wireless transmission apparatus that performs adaptive modulation with a multicarrier signal formed with a plurality of blocks, each block including a 5 plurality of subcarrier signals, the wireless transmission apparatus comprising:

a selection section that selects modulation schemes of the plurality of blocks on a per block basis; and

10 a modulation section that modulates the plurality of subcarrier signals in the plurality of blocks using the modulation schemes selected on a per block basis,

15 wherein the selection section selects the modulation schemes on a per block basis based on an average and a dispersion of values representing propagation path characteristics of each block.

2. The wireless transmission apparatus according to claim 1, wherein the average of the values representing propagation path characteristics comprises an average 20 of SNRs and the dispersion of said values representing propagation path characteristics comprises a dispersion of said SNRs.

25 3. The wireless transmission apparatus according to claim 2, wherein the dispersion of the SNRs is determined from SNRs less than or equal to an average SNR.

4. The wireless transmission apparatus according to
claim 1, wherein the average of the values representing
propagation path characteristics comprises an average
of SNRs and the dispersion of the values representing
5 propagation path characteristics comprises a dispersion
of channel estimation values.

5. The wireless transmission apparatus according to
claim 4, wherein the dispersion of the channel estimation
10 values is determined from channel estimation values less
than or equal to an average channel estimation value.

6. The wireless transmission apparatus according to
claim 1, wherein the average of the values representing
15 propagation path characteristics comprises an average
of SNRs and the dispersion of the values representing
propagation path characteristics comprises a dispersion
of amplitudes of signals of pilot portions.

20 7. The wireless transmission apparatus according to
claim 6, wherein the dispersion of the amplitudes of the
signals of pilot portions is determined from signals of
pilot portions having amplitudes less than or equal to
an average amplitude.

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8. A modulation scheme selection method used in a
wireless communication system where adaptive modulation

is performed with a multicarrier signal formed with a plurality of blocks, each block including a plurality of subcarrier signals, the method comprising:

5 a selection step of selecting modulation schemes of the plurality of blocks on a per block basis; and

a modulation step of modulating the plurality of subcarrier signals in the plurality of blocks using the modulation schemes selected on a per block basis,

wherein the selection step selects the modulation 10 schemes on a per block basis based on an average and a dispersion of values representing propagation path characteristics of each block.